THE BIG MUDDY

The River of the Lewis and Clark Expedition-Part 2

BACKGROUND INFORMATION:

THE NATURAL HISTORY OF MISSOURI

BUFFALO – *Prairie State Park*

Prior to settlement by Europeans, the Missouri River region was home to one of the most complex and vibrant ecosystems on earth. Huge herds of buffalo roamed the open grasslands of Missouri serving as an important food source for many of the American Indians living in the region. Missouri also supported populations of bear, mountain lion, elk, badger and river otter. Wolf packs were even reported in the state. While some of these animals can be found today, the populations are mere fractions of those first witnessed by the Corps of Discovery. The Lewis and Clark expedition documented more than 300 new species of plants, animals and birds previously unknown to science during the course of its journey.

Settlement of Missouri had significant impacts on the flora and fauna that flourished here. Many of the larger animals were hunted for food or pelts. Some were hunted because they posed a threat to livestock, as was the case with the wolf and the mountain lion. Prior to the 1900s Missouri had no regulated hunting seasons whatsoever. Over hunting served to reduce the populations of many of Missouri's wild game. During the Corps of Discovery journey, Clark wrote that deer were as plentiful "as chickens on a farm." By 1925 the population of white-tailed deer had been reduced to less than 400 statewide.

However, the greatest impact to Missouri's wildlife populations has resulted not from hunting, but from habitat loss. Settlement brought about changes in the landscape as the majority of Missouri's Ozark forests were cut for firewood, lumber or to make room for crops. Populations of deer, turkey, elk, buffalo, otter, bear and mountain lion, along with numerous plant species, were reduced or completely absent from the state by the 1900s. Biodiversity is a term that describes the inter-relationship that exists between the numerous organisms living in an ecosystem. A reduction in the variety and types of organisms represents a reduction in biodiversity and can indicate that the natural system may not be functioning well.

Fortunately, efforts have been made to restore a portion of Missouri's pre-settlement biodiversity. Missouri's hard wood forests have made a remarkable come back from the clear cutting of the 1900s with forests now covering one-third of the state. In 1937 the Missouri Conservation Commission was formed, and hunting for white-tailed deer was temporarily closed. Programs to restore deer populations were initiated and these efforts, along with careful management of hunting seasons, have successfully returned white-tailed deer to the state. Turkey were also re-introduced and have exhibited a similar comeback. Currently, river otters are being released in Missouri, and there is even discussion concerning returning elk to the Missouri landscape.

The streams and rivers of Missouri have not faired so well. It is estimated that one-third of fish populations native to Missouri are threatened as a result of declining water quality and reduction in habitats. Increasing development of land surrounding streams and rivers has led to sedimentation, pesticide and herbicide contamination, and increased wastewater discharge. Many rivers and streams have been altered for human use through dams, levees and channelization. Prior to settlement, the Missouri River contained a diverse ecosystem dependent on abundant braided channels, riparian lands, chutes, islands, sandbars and backwater areas. Today, more than half of the Missouri River has been impounded or channalized. Such changes have reduced the populations of many fish and bird species, placing some of them on the endangered species list.

The native prairie that once covered a third of Missouri has been reduced to less than 90,000 acres. These prairies, once supporting millions of buffalo, elk and deer, have now been largely converted for agricultural use. Wetland areas associated with both prairies and river bottoms have also faced steep declines. It is estimated that more than half of the wetlands previously found in Missouri have been drained, primarily for agricultural cultivation or urban development. The result of many of these changes is that more than 600 kinds of plants and 325 animals are listed as a concern to conservationists. These represent organisms in Missouri that are either uncommon or their numbers are in decline.

FOR ADDITIONAL INFORMATION:

THE MISSOURI RIVER STORY
United States Geological Survey
http://infolink.cr.usgs.gov/The_River/description.htm

MISSOURI RIVER ENVIRONMENTAL ASSESSMENT PROGRAM (MoREAP)
United States Geological Survey
http://infolink.cr.usgs.gov/Science/MoREAP/MissouriRiver.pdf

PRESETTLEMENT PRAIRIE OF MISSOURI
Walter A. Schroeder
Missouri Conservation Department

THE HISTORY OF THE WHITE-TAILED DEER PROGRAM IN MISSOURI
Missouri Conservation Department
http://www.conservation.state.mo.us/hunt/deer/deertxt.html

ENDANGERED SPECIES IN MISSOURI
Missouri Department of Conservation
http://www.conservation.state.mo.us/nathis/endandered/

A BRIEF HISTORY OF PRAIRIE
Missouri Conservation Department
http://www.conservation.state.mo.us/nathis/natcom/prairies/pubprairies/history.htm

MISSOURI DEPARTMENT OF NATURAL RESOURCES
Division of State Parks (see included insert for materials)